



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/564,056

01/10/2006

Hiroyuki Okada

396.457772X00

5663

20457 7590 07/02/2009  
ANTONELLI, TERRY, STOUT & KRAUS, LLP  
1300 NORTH SEVENTEENTH STREET  
SUITE 1800  
ARLINGTON, VA 22209-3873

EXAMINER

MOORE, MARGARET G

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

07/02/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/564,056	<b>Applicant(s)</b> OKADA ET AL.	
	<b>Examiner</b> Margaret G. Moore	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 4, 5, 7 and 10 to 23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 5, 7 and 10 to 23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/24/09 has been entered.

2. Claims 1, 2, 4, 5, 7 and 10 to 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the phrase "which may contain a hydrocarbon group..." is considered to be indefinite since the word "may" does not indicate if this is a necessary requirement or not. The Examiner apologizes for not making this rejection sooner.

In claim 10, reference to claim 8 lacks antecedent basis.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 4, 5, 7, 10 and 14 to 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 02/083763 (as interpreted by the English language equivalent Tamura et al.) in view of Fuchs, Ishikawa et al., Robertson or Lammerting.

The Examiner notes that an English language translation of the WO reference has been ordered.

Tamura et al. teach a episulfide composition containing a thiirane ring compound and a catalyst. See for instance the abstract, and column 27, lines 25 and on (which teaches the catalyst). Column 28, lines 24 and on, teaches the addition of a polysiloxane mold release agent in a preferred amount of from .0005 to 3 parts by weight per

Art Unit: 1796

100 parts of the episulfide compound. This amount overlaps with the claimed amount to a considerable degree such that one having ordinary skill in the art would have found the claimed amount to have been well within routine experimentation and/or optimization of the teachings in Tamura et al.

This reference differs from that claimed in that the term polysiloxane is generic to different species and Tamura et al. does not specifically teach a polysiloxane species as claimed.

As is well known in the art, the various polysiloxane species found in claim 1 are well known mold release agents.

Fuchs teaches polydimethylsiloxanes (corresponding to the structure shown when X is methyl) as known mold release agents on column 10, lines 35 and on.

Ishikawa also teaches polydimethylsiloxane mold release agents. See for instance the abstract.

Robertson teaches polyether polysiloxanes as mold release agents on column 5, lines 12 and on.

Lammerting teaches long chain alkyl polysiloxanes as mold release agents on column 6.

As can be seen from these secondary references, the various siloxanes in claim 1 are commonly used as mold release agents. One having ordinary skill in the art would have been motivated to select a known mold release agent, such as one found in Fuchs, Ishikawa, Robertson or Lammerting, as the mold release agent in Tamura et al. in an effort to obtain the known benefits and properties thereof.

Thus the Examiner has made a prima facie case of obviousness for the composition in claim 1. In order to find the claims as a whole obvious, she must also consider the weight given to the phrase "coating film". Applicants argue that such a phrase gives life and meaning to the claims.

The phrase "coating film" does not appear to carry any weight that would distinguish the claims from that rendered obvious by the prior art. The film need not be attached to a substrate (in claim 1, at least) and can be a free standing film. The term film itself does not indicate any type of thickness or structure. As such the Examiner

Art Unit: 1796

does not believe that this term gives the claims sufficient life and meaning such that it distinguishes the claims from the lens formed in Tamura et al. The Examiner notes that a lens can be considered a free standing film. In addition, the lens is formed by casting the material into a mold made of glass or metal (column 28, line 44) which could be considered a coating film (albeit a coating film that is subsequently removed from the substrate). The language on its own is not sufficient to overcome the obviousness rejection at hand.

On the bottom of page 8 of the remarks filed 4/24/09 applicants state that it would not have been obvious to apply teachings that describe mold release agents to optical materials. The Examiner disagrees since the teachings in Tamura et al. specifically teach the addition of mold release agents. Also, while applicants argue that their polysiloxanes are added as wetting agents, not mold release agents, the Examiner notes that structurally they are the same. Referring to them as wetting agents rather than mold release agents does not change the fact that the claimed composition itself is obvious. Note too that a prima facie case of obviousness (for a composition) does not require the solution of the same problem or recognition of the same advantages as the applicants invention.

For claim 2, please see column 28, lines 14 and on. The amount of silane coupling agent disclosed by Tamura et al. overlaps with the claimed amount such that one having ordinary skill in the art would have found the claimed amount obvious and well within routine experimentation of the prior art teachings.

The episulfide compound in Tamura et al. meet the structures of claims 4 and 5.

For claim 14, please see column 22, lines 30 and on, which teaches the addition of various inorganic filler compounds (as refractive index enhancing agents).

For claim 15, the Examiner notes that since the siloxanes are structurally the same, they will necessarily have the same properties. Thus even though the siloxanes are referred to differently, the prior art siloxanes will inherently have wetting properties.

The weight ranges of claims 16 and 17 are within that disclosed by Tamura et al. on column 28.

Art Unit: 1796

Note that the glass or metal mold on column 28 of Tamura et al. meets claims 19 and 20. In addition the casting step meets claims 21 to 24.

5. Claims 1, 2, 4, 5, 7 and 10 to 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dohi in view of WO 02/083763 (as interpreted by the English language equivalent Tamura et al.), further in view of Fuchs, Ishikawa et al., Robertson or Lammerting.

Dohi et al. teach a method for production of a composite optical element of glass and polymeric material. Dohi et al. do not specifically teach the composition found in claim 1.

As noted supra, Tamura et al., coupled with Fuchs, Ishikawa et al., Robertson or Lammerting, render obvious the composition as found in claim 1. Column 1, lines 15 and on, disclose the various benefits of such a composition.

Thus one having ordinary skill in the art would have been motivated to form a film layer on the surface of a glass material, as found in Dohi et al., with the composition rendered obvious by Tamura et al. in view of Fuchs, Ishikawa et al., Robertson or Lammerting, in an effort to obtain the benefits and properties associated therewith. This results in a film of the polyepisulfide composition of Tamura et al. on a glass substrate. Note that Dohi et al. repeatedly refer to the organic polymer layer as a thin layer.

For claims 11 to 13, please see column 5, line 27, which teaches a thickness of up to a "few hundred microns". From this one having ordinary skill in the art would have found thicknesses of less than a few hundred microns to have been obvious, thereby rendering obvious these claim limitations.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret G. Moore whose telephone number is 571-272-1090. The examiner can normally be reached on Monday and Wednesday to Friday, 10am to 4pm.

Art Unit: 1796

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Margaret G. Moore/  
Primary Examiner, Art Unit 1796

mgm  
7/1/09